The Peoples Natural Gas Co RW Temple No1

Lake Township, Mercer Co., Pa

Gamma ray Log | Sample Log

PENNSYLVANIAN — Pottsville Group

MISSISSIPPIAN

Pocono Group

- Burgoon Fm
- Hempfield Fm.
- Shenango Fm
- Cuyahoga Fm.
- Berea-Cussewago Fm

DEVONIAN

- Zone D
- Zone C
- Zone B
- Zone A

- Tully Fm.
- Hamilton Group
- Onondaga Group
- Oriskony (Ridgeley) Fm.
- Shriver Fm. → Helderberg Fm.?
- Boss Islands-Keyser Fm.

SILURIAN

- Salina Group
- Lockport Group
- Clinton Group

Medina Group

- Grimsby Fm.
- Power Glen Fm.
- Whirlpool Fm.

- Queenston Fm.

500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000

For notes on shallow formations (Pennsylvanian, Mississippian and Upper Devonian formations) refer to other plate

SOURCE OF DATA

Gamma ray log

Appalachian Log Service
1218 Empire Bldg, Pittsburgh 15222

Sample log – Generalized from
Geological Sample Log Co
250 Mt Lebanon Blvd, Pittsburgh 15234

Mississippian data

Carswell & Bennett, Geology & hydrology of Neshannock quadrangle, Pa
Pa Survey Bull W15
Poth, Geology & hydrology of Mercer quadrangle, Pa, Pa. Survey Bull W16

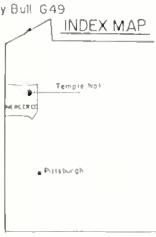
Early and Middle Devonian Silurian Data

Cole, Stratigraphic studies of Silurian rocks of Pa,
Parts 1 & 2, Pa Survey Bulls.
SB10, SB11,
Cole - unpublished data

Ordovician, Cambrian data

Wagner, Stratigraphy of Cambrian to Middle Ordovician rocks of central & western Pa,
Pa. Survey Bull G49

INDEX MAP



SAMPLE LOG EXPLANATION

- Sandstone
- Shale
- Calcareous shale
- Siltstone & Shale
- Red beds (Siltstone & Shale)
- Limestone
- Cherty limestone
- Dolomite
- Sandy dolomite
- Salt
- Anhydrite
- Granite Gneiss
- Unconformity
- Definite sample or GR log boundary
- Indefinite or transitional boundary

NOTES ON DEEP FORMATIONS

Maybe stratigraphically lower than Tully of New York
Position? of Tioga bentonite

Gas in southwestern Pa

Gas from north central to southwestern Pa
Erie Co, Bedford Co.

Gas in Washington & Westmoreland Co. Stratigraphic relations inadequately understood

Top of Salina placed at top of bedded anhydrite

In central Pa. the Salina is represented by
- Tonoloway ls & sh
- Wills Creek sh & ls
- Bloomsburg red beds

Block water zone occurs at different stratigraphic positions, Erie, Crawford Co.

Gas in Mercer Co.

Transitional boundary from Clinton to Lockport

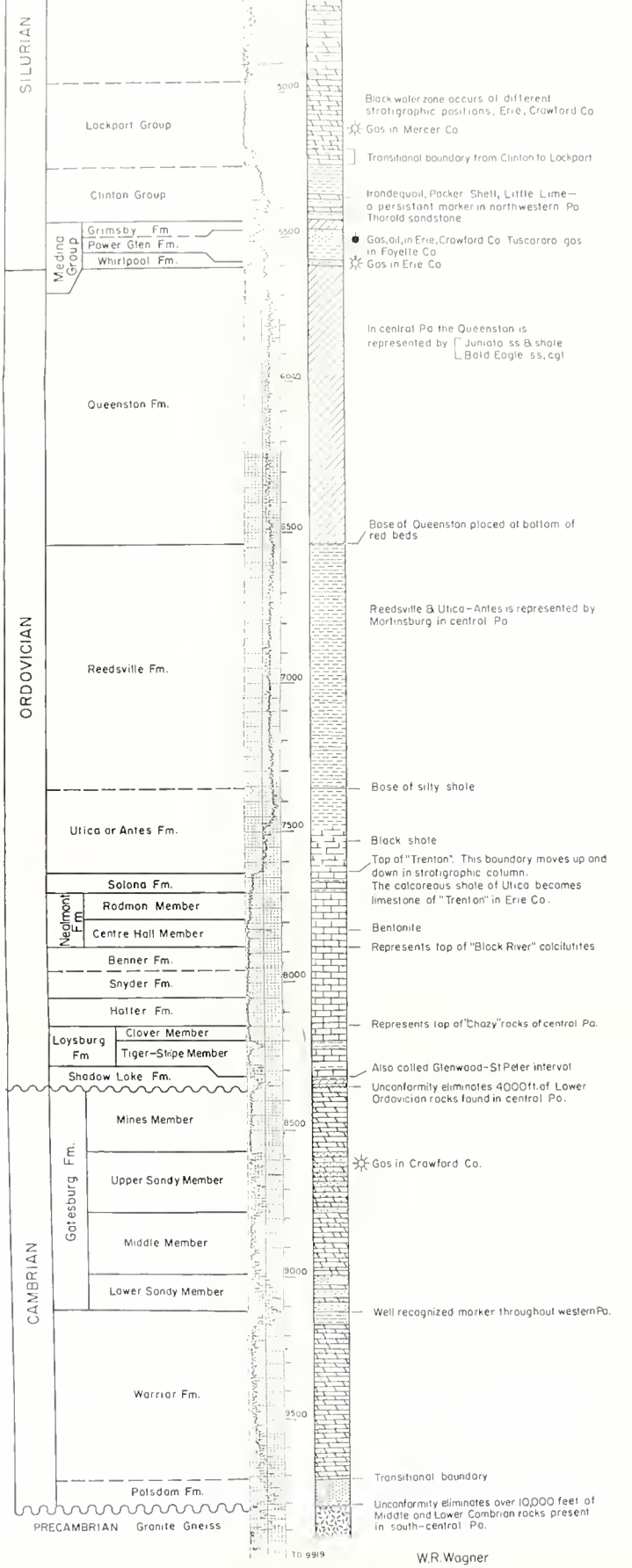
Irondequoit, Packer Shell, Little Lime — a persistent marker in northwestern Pa

Thorold sandstone

Gas, oil, in Erie, Crawford Co. Tuscarora gas in Fayette Co.

Gas in Erie Co.

In central Pa. the Queenston is represented by
- Juniata ss & shale
- Bald Eagle ss, cgl.



W.R. Wagner
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PLATE 1. REPRESENTATIVE STRATIGRAPHIC COLUMN
WESTERN PENNSYLVANIA

PENNSYLVANIAN

MISSISSIPPIAN

DEVONIAN

Conemough Group

Allegheny Group

Pottsville Group

Greenbrier Group

Pocono Group

Zone D

Zone C

1

2

3

Vanport Limestone

Pottsville Group

ARMSTRONG CO.
ALLEGHENY CO.

Big Injun
Squaw
Murrysville

CLARION CO.
BUTLER CO.

Mountain
Shenango
Squaw
Murrysville

Top of Catskill redbeds

ARMSTRONG CO.
ALLEGHENY CO.

100 Foot { Gontz / 50 Foot
Nineveh { Upper / Lower
Gordon Stray
Gordon
Fourth
Fifth

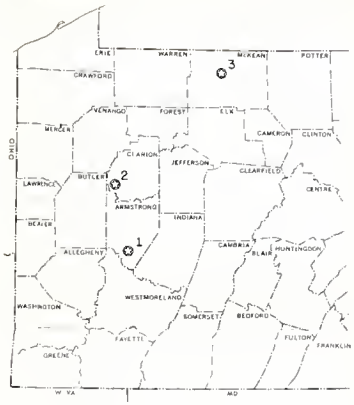
CLARION CO.
BUTLER CO.

Venango First
50 Foot
Rosenberry
Red Valley, Lytle
Venango Second,
30 Foot
Knox { Third / Fourth / Fifth
Venango Third
Fourth
Fifth

ALLEGHENY CO.

Boyard
Elizobeth

NOTE: The oil and gas sands listed under county names are not identified with specific markers on the gamma logs because of uncertainties of the correlation. Instead, the sands are included within 1) the major zones of the Upper Devonian Series (Zones A, B, C, and D) or 2) the Mississippian System.



Location of Selected Gamma Ray Logs

Oleon Fm.

Knapp Fm

Oswoyo Fm.

Cottorougus Fm.

(Catskill Redbeds)

PENNSYLVANIAN

MISSISSIPPIAN

?

?

DEVONIAN

Zone D - Interbedded sandstone, siltstone, and shale, contains Catskill redbeds in wells 1 and 3, paralic sediments of Venango and Knox sandstones in well 2

Zone C - Siltstone and shale with few or no sandstone interbeds. Wells 2 and 3 contain the "Pink Rock". This zone separates the sandstones of Zone D from those of Zone B

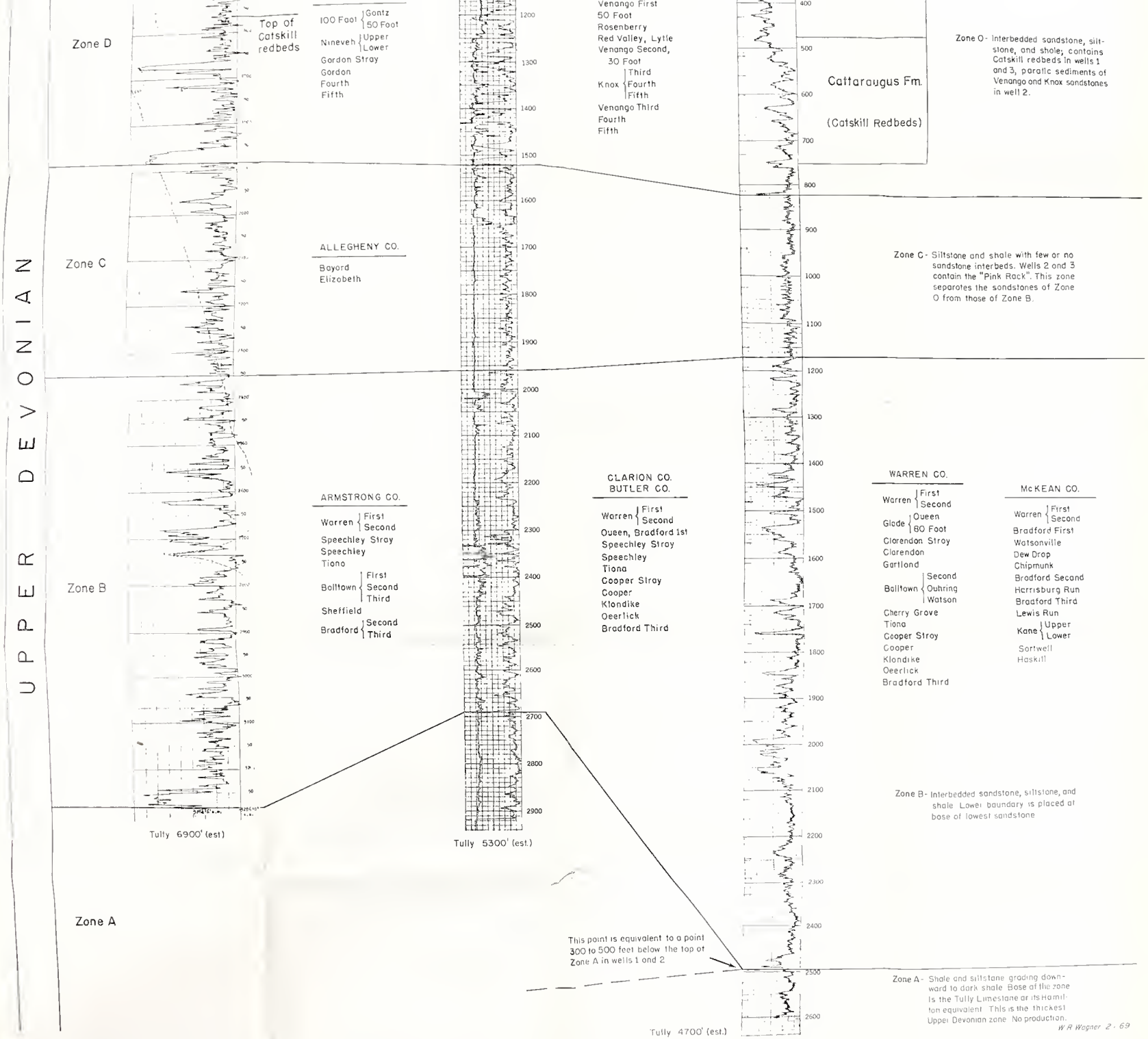


PLATE 2. SELECTED GAMMA RAY LOGS SHOWING MAIN STRATIGRAPHIC DIVISIONS AND POSITION OF SHALLOW OIL AND GAS SANDS